Appendix E

NWS Policies Associated with AWIPS Commissioning

NWS Policies Associated with AWIPS Commissioning

0. Definition of a Commissionable AWIPS Software Release Jan 22 1999 John Kelly
1. Policy for NEXRAD Interfacing to AWIPS Dec 29, 1997 Mary Glackin
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3. NWS Communications Identifier Policy Issuance Jan 27 1995 Walter Telesetsky

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE
1325 East-West Highway
Silver Spring, Maryland 20910-3283

JAN 2 2 1999

MEMORANDUM FOR: Distribution

John J. Kelly, Jr.

Definition of a Commissionable AWIPS Software

Background: In the certification signed by the Secretary of Commerce in April 1998, he committed the Department to delivering a commissionable AWIPS system for less than or equal to $550M. The hardware must be deployed and the development and operational test of a commissionable software load completed within this funding cap.

Issue: A clear definition of a "commissionable AWIPS software system" is required to guide prioritization of developmental efforts, to aid in the classification of software defects identified during test and integration, and to define the scope for related operational tests and evaluations.

Definition: The commissionable AWIPS software release is defined as the initial operating capability which, in combination with staff familiarization and sound operational procedures, is sufficient to make AWIPS the primary system for CONUS forecast and warning operations. This capability is provided by a software release meeting the following criteria:

- Enable AWIPS to be used as the primary WFO and RFC system for data collection and display; weather and hydrological forecast, warning, and guidance preparation; and product dissemination;

- Provide WFO operational service back-up capabilities, which support continuation of critical warning, meteorological watch, forecast, and product dissemination functions.

- Provide the national communications network for field offices, including provision of centrally generated guidance from National Centers and distribution of official weather and hydrological products, (including Hydromet Summary Messages) to allow the decommissioning of AFOS as a national communications system;

- Enable AWIPS to be used as the primary system for NWS internal product distribution for National Centers, WFOs, and RFCs;

- Provide Local Data Acquisition and Dissemination connectivity for local data sources predominant throughout the CONUS (e.g., ASOS, CADAS, MicroArt, IFLOWS, PC-ROSA, and ALERT); provide a system configuration capable of accommodating existing site-unique local connectivity requirements; and support local dissemination;

- Provide the automated text generation to the NOAA Weather Radio Console Replacement System necessary to streamline field staffing by

- Provide network and system support software for the AWIPS Network Control Facility (NCF) that, in conjunction with trained staffing, enables the NCF to support 152 operational and support systems

- Process dates into the year 2000 and beyond; and

- Provide capabilities required to support the AFOS to AWIPS

Final Operational Capability: Additional efforts will be necessary to: (1) support end-state target staffing goals, (2) meet unique requirements of non-CONUS locations, and (3) provide the final capabilities to fully implement modernized operations at field offices and National Centers. The appropriate scope and probable cost of these additional efforts are under study.

cc:
Wx1 - J. Jones
W/CFO - T. David
W/OM - G. Mandt
W/OH - D. Fread
W/OSD - B. Glahn
WIOSO - W. Telesetsky
W/OSD1 - D. Hess
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Wx22- W. Seguin
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W/ER - J. Forsing
W/SR - B. Proenza
W/CR - R. Augulis
W/WR - V. Nadolski
W/AR - R. Hutcheon

[2] Includes 136 systems to be commissioned and remaining

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE
1325 East-West Highway

DEC 2 9 1997

FROM: Wx22 - Mary M. Glackin

SUBJECT: Policy for NEXRAD Interfacing to AWIPS

There appears to be some confusion at our regional and field offices regarding NWS Headquarters' policy for the connection and testing of the various NEXRAD-to-AWIPS local and remote interfaces. The following defines our policies concerning these interfaces. Please pass this

RPG Narrowband Port Hardware:

Approval **for the interfacing** of a local or remote NEXRAD to AWIPS via a 9.6kbps dedicated connection is controlled via the NWS Request for Change (RC) process. NEXR AD ECP F0009R3-CI/C2 lists all NEXRADs that have received approval for this interface. This ECP is used by the NEXRAD Operational Support Facility (OSF) in the ordering of narrowband communications port hardware, and for the development and distribution of WSR-88D Modification Notes dealing with the expansiovf narrowband communications ports for AWIPS interfacing. NWS regions should review this ECP to ensure that it reflects their current NEXRAD/AWIPS interface requirements. Required changes should be submitted to NWS Headquarters in accordance with existing change request procedures. Attached is the ECP's

Local NWS NEXRAD (9.6kbps Low Speed Dedicated Circuit):

A new 9.6kbps dedicated circuit will be ordered by the OSO, Telecommunications and Dissemination Branch for those AWIPS sites that require one. Circuit installation needs will be coordinated between the OSO, Telecommunications and Dissemination Branch; the OSF; Wx22 and the AWIPS site in advance of the actual AWIPS installation. Since most AWIPS sites have the RPG collocated with the AWIPS the ordering of this circuit is typically not required. In most all cases the site is only required to install a hardwire between the RPG demarcation and the AWIPS punchdown block.

At locations where the RPG is located at the RDA site, the site is responsible t'or providing the required hardwire circuit from the RPG to the AWIPS punchdown block. Typically in these instances

At all AWIPS sites this circuit will be interfaced directly to the AWIPS via the appropriate AWIPS

Local NEXRAD (56kbps High Speed Dedicated Circuit):
For budget reasons there are no plans at this time to install a new AWIPS-dedicated (i.e., redundant to the current 56kbps PUP interface) 56kbps NEXRAD interface to the AWIPS. PRC will provide a cable for the temporary testing of the 56kbps interface to AWIPS. This cable will be left in place, in the AWIPS rack, at the conclusion of Site Acceptance Testing (SAT) for site use when the 56kbps interface is permanently transitioned from the PUP to the AWIPS. At four sites (i.e., WFO, Pittsburgh, PA; VrFO/RFC, Salt Lake City, UT; WFO/RFC, New Orleans, LA; and WFO, Wichita, KS) we will be conducting an OT&E on the feasibility of using an A/B switch to alternately switch the existing 56kbps circuit between the PUP and the AWIPS. This concept is being tested to determine: (1) the ease of switching the interfaces during AWIPS acceptance testing and (2) the operational and technical impacts of switching the circuit. The A/B switch is designed to be a temporary modification that will be used until the PUP is decommissioned. The OSF has the responsibility for developing this modification and implementing it at the four OT&E sites. A decision will be made at the conclusion of the OT&E on the need for and our ability to install the A/B switch at other AWTPS sites.

Remote NEXRAD (9.6kbps Low Speed Dedicated Circuit):
For budget reasons there are no plans at this time to install any new AWIPS-dedicated (i.e., **redundant to the existing 9.6kbps NEXRAD circuit)** 9.6kbps circuit to any remote, associated NEXRADs. As part of the OT&E described above we will also be testing the AAB switch concept to permit alternate switching of the existing NEXRAD 9.6kbps circuit between the PUP and the AWIPS.

Prior to the PUP's decommissioning, the relocation of an existing 9.6kbps, dedicated circuit from the PUP, for permanent connection to the AWIPS, cannot be done without regional headquarters

9.6kbps Dial Circuit:
For budget reasons there are no plans at this time to install any new AWIPS dial circuits for accessing remote NEXRADs. The use of the A/B switch concept for this current PUP function will also be tested. The RFCs will be permitted to permanently transfer one of their two PUP dial circuits to AWIPS. WFOs which currently have multiple PUPs may, at the option of the MIC, permanently transfer the dial line from one PUP to AWIPS, leaving all other dial circuits in place.

NOTE: Any particular AWIPS site having dedicated connection to a particular RPG cannot also have

Modem Support for Three-Radar Sites:
Until Cluster 13 (Alaska and Hawaii) it is our intent to provide 9.6kbps dedicated modem support in the AWIPS for up to a maximum of two radars (i.e., the local and one remote). At sites with three radars, only two of the three radars will be supported initially until such time as the 56kbps line is permanently connected to the AWIPS. At that time the 9.6kbps dedicated modem for the local NEXRAD will be

AWIPS Acceptance Testinv-:
If an A/B switch modification is not installed at the time of AWIPS acceptance testing the site will be required to temporarily relocate the PUP's 56kbps, 9.6kbps dedicated and dial to the AWIPS punchdown blocks so AWIPS testing can be completed. After AWIPS testing is satisfactorily completed

Typically no additional NEXRAD hardware should be required to temporarily test the 56kbps interface. Any problems regarding the temporary testing of the 56kbps interface should be reported to

Relocation of NEXRAD Equipment Due to the AWIPS Installation:
If relocation of any NEXRAD equipment is necessary due to the installation ot'AWIPS it will be the responsibility of the site/region to identify, as necessary, any hardware needed to implement the change, and to include the hardware list with a change request submission. The change request should be submitted by the region to NWS Headquarters following standard change request procedures.

Interface Transitioning:
The permanent connection (i.e., transition timing and plans) of local and remote, dedicated and dial NEXRAD interfaces to AWIPS will be addressed by the OSO Commissioning Manager in a separate

Please refer any questions on this memorandum to Scott Dye at 301-713-3409, x 109.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration,4~
NATIONAL WEATHER SERVICE

SEP 2 3 1998

MEMORANDUM FOR: Directors, All NWS Regions
Directors, All NWS Headquarters Offices

FROM: John J. Kelly, Jr.
Assistant Administrator
for Weather Services

SUBJECT: Policy on Changes to Installed AWIPS

As we face the daunting task of installing nearly 100 Awips systems between now and June 1999, we must also address several other aspects of AWIPS. This task includes completing the development, testing, and refinement of a substantial amount of complex software; installing hardware modifications in order to **implement the LDAD functionality; and improving central** operations support to the operation of AWIPS, principally through enhancements in the Network Control Facility (NCF) and through the NWS AWIPS Site Support Team. NWS Headquarters cannot do this job without your help.

One of the areas that disrupts our ability to provide effective onerational support is unauthorized changes in the hardware ana software configurations. The NCF and PRC provide support and maintenance based on known hardware and software configurations. When unauthorized changes are made by the site, the support and maintenance is compromised, usually resulting in longer recoveries and "out of scope" contract claims by PRC. Unapproved configuration changes have also resulted in problems when installing new software releases. ***We must stop these unapproved changes now.***

There are generally two categories of changes: baseline changes and localization and customization changes. Formal change management procedures are being developed by the office of Systems Operations for the operational phase of AWIPS. Until AWIPS is formally placed under these procedures, interim procedures have been established. All Requests for Change to the installed AWIPS hardware and software configuration shall be directe through designated regional or office CM focal points

and eleltronically sent to the CCMail mailbox "NWSRC . Hardware and software changes are processed by the AWIPS Configuration Control Board (CCB). Data product changes are likewise directed through designated regional or office CM focal points and electronically

as necessary. Approvals will be provided by an approved Request for Change memorandum and/or an AWIPS Change Notice to be transmitted to

In the area of localization and customization, specific guidelines are being developed to guide field sites. In the meantime, the AWIPS System Managers Manual, the "localization. doc" files on AWIPS, and specific documentation and instructions issued by the AWIPS Site Support Team (SST) are the only changes permitted on AWIPS. Only changes described in these documents may be done without the express written approval of the Chief of the AWIPS Operations Management Division. I would like you to inform your employees of this policy and your support to ensure all comply with it. We will only succeed in fielding AWIPS by next June if everyone pulls in the

cc:
W/APO M. Glackin
W/APO1 W. Seguin
W/AP02 M. Young
W/OSO112 R. Embleton

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE

JAN 27 1995

W/OSO11x1:HJD

MEMORANDUM FOR: Distribution

FROM: W/OSO - Walter Telesetsky

SUBJECT: NWS Communications Identifier Policy Issuance

REFERENCE: W/OSO11xl:HJD memorandum dated May 26, 1994, similar subject

The reference memorandum was distributed this past May to NWS senior management in order to finalize and receive approval and concurrence for the NWS communications identifier policy. This policy had already undergone extensive review and coordination through the formal NWS configuration management process. However, due to the important role that communications identifiers play in the NWS modernization and restructuring, this high-level review and concurrence by NWS senior management was deemed appropriate and has

As a result of this concurrence (see pages iv-v of the attached policy document), I am now formally issuing this policy for implementation within the NWS. The policy will be implemented by the NWS Data Review Group through the coordination and implementation of formal data product requests for change. If you have any questions about this policy, please contact Howard Diamond, W/OSO11x1, at (301)

Attachment

Distribution:

W/OM - L. Uccellini
W/OH - M. Hudlow
W/NMC - R. McPherson
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W/AR - R. Hutcheon
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COMMUNICATIONS IDENTIFIER POLICY FOR:

OPERATIONAL NWS COMMUNICATION NETWORKS AND SYSTEMS

JANUARY 1995

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL WEATHER SERVICE

OFFICE OF SYSTEMS OPERATIONS/SYSTEMS INTEGRATION DIVISION